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EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,135	MERINO-LOPEZ ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-21 and 30-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-21,30-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8-7-06 has been entered.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 1-10, 12-21 and 30-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite. The description of "A tire" (line 1) in claim 1 strongly indicates that an article (i.e. a tire) is being claimed. However, claim 1 also recites "wherein an estimate of a tangential force on the vehicle is obtained [in contrast to "is obtainable"] based on the signal produced by the at least one first tread element" (emphasis added), which appears to be a positive method step. The effect of "is obtained" [in contrast to "is obtainable"] on the scope of the tire of claim 1 ambiguous. It is unclear what additional claimed structure, if any, is required by the wherein clause including the description of "is obtained". It is unclear if "is obtained" [in contrast to "is obtainable"] either changes claim 1 from being an article claim to a method claim 1 or describes the intended use of the tire or requires something else. The recitation of "is obtained" instead of "is obtainable" in claim 1 fails to reasonably appraise one of

ordinary skill in the art with a reasonable degree of certainty of the scope of protection afforded by claim 1.

Claims 31 and 32 are indefinite for the same reasons given above for claim 1.

Claim 33 is indefinite for substantially the same reasons given above for claim 1. In particular, the effect of "are determined" (positive method step?), like that of "is obtained", on the scope of the claim is unclear.

In claims 1, 31 and 32, there is no clear antecedent basis for "the vehicle" after "an estimate of a tangential force". After "an estimate of a tangential force" in claims 1, 31 and 32, it is suggested to change "the vehicle" to --the vehicle wheel--.

4) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Brazil

6) **Claims 7, 10, 12, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazil (Brazil 200002924) in view of Japan 802 (JP 62-6802).**

Claims 1-6, 18-21 and 30-33 are entitled to the benefit of the filing date (8-10-00) of parent application 09/636,566. **Brazil is not available as prior art against claims**

1-6, 18-21 and 30-33. These claims are entitled to the benefit of the parent application's filing date (8-10-00) which is before the publication date (10-17-00) of Brazil.

With respect to claims 7-10 and 12-17, applicant has perfected his 119 foreign priority claim since the certified English language translation of France 01/01672 having a filing date of 2-7-01 has been received (see paper 10-19-04). However, **Brazil is available as prior art under 35 USC 102(b) against claims 7-17.** Applicant's 119 foreign priority claim fails to remove Brazil as prior art since the filing date (2-7-01) of applicant's foreign priority application France 01/01672 is after the publication date (10-17-00) of Brazil. See MPEP 201.13. It is acknowledged that this application is a CIP of the parent application 09/636,566. Claims 7-10 and 12-17 are not entitled to the benefit of the filing date (8-10-00) of the parent application 09/636,566 since each of claims 7-10 and 12-17 are not directed solely to the subject matter disclosed in the parent application. The subject matter of claims 7-10 and 12-17 was first introduced in this CIP application. Accordingly, the filing date of claims 7-10 and 12-17 is 2-6-02 (the filing date of this CIP application). The publication date (10-17-00) of Brazil is more than one year before the filing date (2-6-02) of claims 7-10 and 12-17.

Brazil's invention is to provide a tire having a tread with sufficient grip with a sensor such that the sensor is within a tread element that slides so that a signal representative of tangential force can be produced and used for example to estimate the tire's grip potential. Brazil discloses a tire having a sacrificed rib / pad (first tread element) 1 and an ordinary rib / pad (second tread element) 2 wherein the sacrificed rib

(first tread element) slides against the ground while the ordinary rib (second tread element) does not slide against the ground. As can be seen from figure 1, the upper surface of the first tread element is below the tread surface. The first tread element includes a sensor for measuring stresses in the longitudinal direction. See abstract of Brazil provided by examiner with the action dated 5-21-04 and the copy and English translation of Brazil provided by applicant with the response filed 10-19-04. Brazil is not limited to embedding the sensor in a "sacrificed rib". For example, Brazil teaches that the sensor may be embedded in a sacrificed pad. See first line of next to last paragraph on page 5 of the translation. Another example, Brazil teaches a first tread element having a sensor therein wherein this first tread element slides relative to the ground. See last paragraph on page 3 of the translation. This disclosure of a first tread element which slides relative to the ground is not limited to "sacrificed rib". Another example, Brazil teaches using a first element having a low height (a tread element having a smaller distance from wheel axle to the contact surface). See paragraph (a) on page 4 of translation. Hence, Brazil teaches a first element which slides and a second tread element which does not slide as required by claim 7 due to its dependence on claim 1. Brazil does not recite locating the sensor in a central zone surrounded by an encircling zone.

As to claim 7, it would have been obvious to one of ordinary skill in the art to form an encircling zone and central zone as claimed wherein the central zone has Brazil's sensor therein in view of (1) Brazil's teaching that the tire should grip the road, (2) Brazil's teaching to embed the sensor in a tread element having a lower height than

other tread elements and (3) Japan 802's teaching to form small zones 11 (central zones) in a circumferential rib 3 (tread element defining encircling zone) of a tire tread such that the small zone 11 (central zone) has a lower height than the height of the circumferential ribs (tread elements) to improve grip of the tire. See figures and abstract of Japan 802. One of one of ordinary skill in the art would have been particularly motivated to locate Brazil's sensor in small zone (central zone) suggested by Japan 802 since (1) Brazil suggests locating the sensor in a low height tread element and (2) Japan 802's small zone 11 is a low height tread element. In particular, the distance between the wheel axle and the contact surface 11A of tread element / pad 11 is smaller than the distance from the wheel axle and the contact surface 3A. With respect to Brazil, applicant concedes that "... it is axiomatic that a tire should grip the road ..." (page 15 of response filed 1-24-06). Examiner adds that (1) Brazil teaches that the tire tread must have sufficient grip to avoid an accident in the case of insufficient grip (page 13 of translation) and (2) Japan 802 teaches tread elements for improving the grip of the tread of a tire as desired by Brazil. Motivated by the desire found in Brazil to use a tire tread having sufficient grip, one of ordinary skill in the art would have found it obvious to use tread elements disclosed by Japan 802 for Brazil's tread to improve the grip of the tread as desired by Brazil. This is especially true with Japan 802's tread since the tread element 11 in Japan 802 has a low height as desired by Brazil. In other words, Brazil's teaching to incorporate sensors in pads or ribs is general instead of specific. Brazil shows a cross section of tire having a low height rib instead of the plan view of a specific tread pattern for improving grip. Brazil describes incorporating a sensor in a

pad, but does not illustrate a specific tread pattern for improving grip containing a pad. One of ordinary skill in the art would turn to the prior art for a more complete disclosure of a specific tread pattern for improving grip. Japan 802 is a prior art reference showing such a tread pattern. One of ordinary skill in the art would have found Japan 802's specific tread pattern especially desirable and suitable since (1) Japan 802's specific tread pattern contains low height "pads" 11 in a rib and (2) Brazil instructs one of ordinary skill in the art to incorporate sensor in a pad.

Japan 802's central zone 11 has a resistance to a force directed perpendicular to the surface of the tread which is less than a resistance to a force directed perpendicular to the surface of the tread offered by the encircling zone 3 since the zone 11 has a lower height than the height of the encircling zone 3. It is noted that Brazil teaches that the pressure under the sacrificed rib (low height first tread element), by its very nature, is lower than the pressure on the second tread elements (ordinary ribs). See page 11 of the translation of Brazil.

As to claim 10, note the location of zone 11 in Japan 802's figure 3.

As to claims 12, 16 and 17 (thin recess strip / annular cutout), the claimed thin recess strip (annular cutout) would have been obvious in view of Japan 802's teaching to separate the low height tread element 11 from the rib 3 using an annular cutout (sipe 10). With respect to claim 17, it would have been an obvious alternative to incline the annular cut since it is taken as well known / conventional per se to orient an annular slit such that the walls are inclined instead of perpendicular to the tread surface.

7) **Claims 7-10 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brazil (Brazil 200002924) in view of Eudy (US 2152883), Japan 321 (JP 6-171321), Japan 807 (JP 61-263807) or Japan 918 (JP 8-118918).**

Brazil, which is discussed above, does not recite providing the first tread element as a central zone surrounded by an encircling zone. Eudy, Japan 321, Japan 807 and Japan 918 are applied in the alternative since (1) Eudy and Japan '321 differentiate the central and encircling zones using an annular cutout (similar to *applicant's figure 6 embodiment)*, (2) Japan 807 differentiates the central and encircling zones using composition (similar to *applicant's figure 5 embodiment*) and (3) Japan 918 differentiates the central and encircling zones using wells (similar to *applicant's figure 4 embodiment*).

As to claim 7, it would have been obvious to one of ordinary skill in the art to form an encircling zone and central zone as claimed wherein the central zone has Brazil's sensor therein in view of (1) Brazil's teaching that the tire should grip the road, (2) Brazil's teaching to embed the sensor in a tread element and (3) Eudy, Japan '321, Japan 807 or Japan '918's teaching to form a tread element in a tread such that it has an encircling zone and central zone wherein (A) Eudy teaches using annular slits, which define a central zone, to improve traction (grip); (B) Japan 321 teaches using sipes, which define central zones, to improve traction (grip); (C) Japan 807 teaches using different compositions, which define central zones for blocks of a tire, which has sufficient grip to be used on snow and ice; (D) Japan 918 teaches using holes, which define central zones, to prevent uneven wear without worsening traction (grip). With

respect to Brazil, applicant concedes that "... it is axiomatic that a tire should grip the road ..." (page 15 of response filed 1-24-06). Examiner adds (1) Brazil teaches that the tire tread must have sufficient grip to avoid an accident in the case of insufficient grip (page 13 of translation) and (2) each of the secondary references teach tread elements for improving the grip of the tread of a tire as desired by Brazil. Motivated by the desire found in Brazil to use a tire tread having sufficient grip, one of ordinary skill in the art would have found it obvious to use tread elements disclosed by the secondary art for Brazil's tread to improve the grip of the tread as desired by Brazil.

The central zone of each of Eudy, Japan 321, Japan 807 and Japan 918 has a resistance to a force directed perpendicular to the surface of the tread which is less than a resistance to a force directed perpendicular to the surface of the tread offered by the encircling zone. In Eudy, this difference in resistance to force is caused by the slit 4 (thin recess strip). In Japan 321, this difference in resistance to force is caused by sipes 7 (thin recess strip). In Japan 807, this difference in resistance to force is caused by the use of different rubber composition for the central zone. In Japan 918, this difference in resistance to force is caused by the holes 5 (wells). As to claim 8, the claimed relative sizes of the zones would have been obvious in view of the relative sizes of the central and encircling zones suggested by Eudy or Japan 321; the zones having about the same area in the diamond shaped blocks in figure 8 of Eudy and Japan 321 teaching to provide the small zone with an area of 5-65% of the block areas.

As to claim 9, the claimed relative sizes of the zones would have been obvious in view of the relative sizes of the central and encircling zones suggested by Eudy, Japan 321 or Japan 918.

As to claim 10, note the location of the "central zone" suggested by the applied secondary art.

As to claims 12, 16 and 17 (thin recess strip / annular cutout), the claimed thin recess strip (annular cutout) would have been obvious in view of the annular cutout suggested by Eudy or Japan 321. With respect to claim 17, it would have been an obvious alternative to incline the annular cut since it is taken as well known / conventional per se to orient an annular slit such that the walls are inclined instead of perpendicular to the tread surface.

As to claims 13 and 14 (wells), note the wells suggested by Japan 918. With respect to claim 14, it would have been an obvious alternative to incline the wells since it is taken as well known / conventional per se to orient wells (holes) such that they are at 90 degrees or inclined with respect to the tread surface.

As to claim 15, Japan 807 suggests using different compositions wherein the central zone has a lower hardness.

Winner et al

8) **Claims 1, 6, 18-20 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Winner et al (DE 3939917).**

Winner et al discloses a vehicle tire 12 having a tread 11 and a multiplicity of measuring knobs 10, 101-105 (first tread elements) wherein a "sensor" 20 is embedded

within the knob (tread element) 10 as shown in figure 2 so that (1) sensor unit 16 can detect those measuring knobs (first tread elements) which slip (slide) during the rolling of the tire and (2) the momentary friction between the tire 12 and road surface (carriageway surface) 14 can be calculated so as to determine the instantaneous adhesion between the tire and road surface. The measuring knobs have different frictional coefficients obtained by adjusting their geometric shape (inclination) so that a number of the measuring knobs slip during rolling of the tire. See abstract and machine translation.

As to claims 1, 6, 18-20 and 30-33, the claimed tire is anticipated by Winner et al's tire. The claimed sensor continues to read on sensor 20. The claimed first tread element reads on a measuring knob having the sensor therein. The claimed second tread element reads on another one of the measuring knobs or tread material 11. With respect to claims 6, 30, 32 and 33, Winner et al used plural measuring knobs. As to claims 18-20, see figures 1-2.

With respect to Winner et al's "measuring knob" comprising a sensor having the claimed capability, the examiner makes the following comments: A "sensor capable of making a measurement of a level of tangential force in the contact surface of the at least one first tread element during its passage through the contact area ... the sensor in each first tread element producing a signal proportional to the tangential force acting upon the first tread element" reads on **Winner et al's sensor which measures change in resistance**. Winner et al uses this information as follows: The change in resistance

of the knob measured by the sensor is compared with a threshold value. When the threshold value is exceeded, the knob is determined as being one of the slipping knobs.

Furthermore, the description of "an estimate of a tangential force on the vehicle is obtained [obtainable] based on the signal produced by the at least one first tread element" relates to intended use and fails to require either (1) a process step of estimating a tangential force on the vehicle based on the signal produced by the at least one first tread element or (2) means for estimating a tangential force on the vehicle based on the signal produced by the at least one first tread element.

As to claims 6, 30, 32 and 33, the claimed second tread element reads on another one of the measuring knobs. Claims 1, 31, 32 and 33 do not exclude sensors in the second tread elements. See claim 6. Applicant states: "German '917 [Winner et al] discloses a tire having a plurality of measuring knobs to which a defined coefficient of friction is assigned by virtue of their geometric shape. The measuring knobs are capable of beginning to slide or slip at various different values of adherence on the road". (page 10 of response filed 10-19-04). With respect to claim 1, it is clear from applicant's description of Winner et al that Winner et al has "different" measuring knobs ("different" tread elements) wherein one measuring knob (a first tread element) can slide during "a first rolling condition" whereas another measuring knob (a second element) does not slide ("slides insufficiently") during "the first rolling condition". Alternatively, the claimed second tread element reads on the tread material 11 defined between the cutouts in which measuring knobs 101-105 are located therein. The tread material 11, unlike the measuring knobs is not designed to slide.

Breuer et al

9) **Claims 1-6, 18-21 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breuer et al (DE 3937966) view of at least one of Knill (US 4319620) and Kukimoto et al (US 5445201).**

Breuer et al discloses a tire having a tread comprising **tread lugs (tread elements)** and **grooves**. See figure 1, figure 4 and first paragraph after the brief description of the figures on page 2 of the machine translation. Breuer et al provides at least one **sensor 4** in a tread lug (tread element) of the tread for detecting variation of local stresses in at least one horizontal direction and the normal direction. With respect to the sensor, Breuer et al discloses using piezoelectric devices; strain gauges; or magnet 12 and Hall generators 14. See page 3 of machine translation. The measured values are evaluated to determine the maximum coefficient of friction so as to enable determination of limits of stable vehicle operation before reaching them.

As to claims 1-6, 18-21 and 30-33, it would have been obvious to one of ordinary skill in the art to embed Breuer et al's sensor in a first tread element which is "different" than a second tread element as claimed in that the first element slides during a first rolling condition and the second element does not slide or slides insufficiently during the first rolling condition in view of (1) Breuer et al's suggestion to locate at least one sensor in a tread such that it is embedded in a tread element (e.g. tread lug) and (2) (a) Knill's suggestion to reduce rolling resistance while also providing adequate tread wear and traction (wet skid resistance) by using different compositions for the tread elements of the central portion and outer portions of the tread (some but not all of these tread

elements sliding at least within a range of rolling conditions due to their different compositions) and/or (b) Kukimoto et al's suggestion improve wear resistance by using different tread elements in a tread (some but not all of these tread elements sliding at least within a range of rolling conditions due to their different heights).

With respect to Knill and slipping / not slipping, Knill's tread has a "first tread element" which slips "under a first rolling condition" and a "second tread element" which does not slip / slips insufficiently "under the first rolling condition" because Knill's tread comprises tread elements in circumferentially continuous zones having different compositions. Since (1) the wet skid of 80-95 for the outer portion is lower than the wet skid of 100 for the center portion and (2) the outer and center portions are circumferentially continuous (simultaneously always in contact with the ground), a "first rolling condition" must exist in which simultaneously the outer portion 7 slides and the center portion 6 does not slide.

With respect to Kukimoto and slipping / not slipping, Kukimoto et al's tread has a "first tread element" which slips "under a first rolling condition" and a "second tread element" which does not slip / slips insufficiently "under the first rolling condition" because Kukimoto et al's tread has different height circumferentially continuous tread elements; it being emphasized that Kukimoto teaches that the low height tread element "slides" in the ground contact area so that it function as a sacrificial portion and thereby improve wear resistance of the tread. It is emphasized that Kukimoto et al expressly states "slide-contacts" (abstract).

As to claims 2-4, Knill suggests the claimed different materials and Breuer et al suggests embedding a sensor in tread element of the central tread region or the outer tread region to determine frictional connection characteristics.

As to claim 5, Kukimoto et al teaches a low height tread element.

As to claims 6, 30, 32 and 33, it would have been obvious to provide sensors in first and second tread elements in view of (1) Knill / Kukimoto et al's disclosure of a tread having "different" tread elements and (2) Breuer et al' suggestion to use plural sensors in a tread.

As to claims 18-21, Breuer et al teaches embedding a sensor 4 in a tread lug (tread element) of the tread for detecting variation of local stresses in at least one horizontal direction and the normal direction wherein, with respect to the sensor, a magnet 12 and Hall generators 14 may be used.

Remarks

10) Applicant's arguments with respect to claims 1-10, 12-21 and 30-33 have been considered but are moot in view of the new ground(s) of rejection.

As to the claims filed 7-19-06 and entered per the RCE filed 8-7-06, applicant's arguments filed 7-19-06 have been fully considered but they are not persuasive.

With respect to Brazil, applicant argues that there would have been no reason to turn to Japan 802 for "low height" tread elements and one would not have been motivated to modify the encircled tread elements to include measurement sensors since Brazil already discloses "low height" tread elements, such as sacrificed ribs or pads, that incorporate measurement sensors. Applicant's argument is not persuasive since

Brazil's teaching to incorporate sensors in pads or ribs is general instead of specific. Brazil shows a cross section of tire having a low height rib instead of the plan view of a specific tread pattern for improving grip. Brazil describes incorporating a sensor in a pad, but does not illustrate a specific tread pattern for improving grip containing a pad. One of ordinary skill in the art would turn to the secondary art for a more complete disclosure of a specific tread pattern for improving grip. Japan 802 shows such a tread pattern. One of ordinary skill in the art would have found Japan 802's specific tread pattern especially desirable and suitable since (1) Japan 802's specific tread pattern contains low height "pads" 11 in a rib and (2) Brazil instructs one of ordinary skill in the art to incorporate sensor in a pad.

With respect to applicant's arguments regarding Winner et al, examiner comments that Winner et al's use of the signals from the sensor is binary whereas the sensor produces a signal proportional to the tangential force. The signal from the sensor is dependent on resistance which in turn is dependent on pressure and tangential force acting on the knob. The use of a signal proportional to the tangential force is not being claimed since all of the pending claims are directed to a tire instead of a method of using the tire.

11) No claim is allowed.

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
October 15, 2006

STEVEN D. MAKI
PRIMARY EXAMINER
10-15-06